

## CLAIMS

Sub 1

1. A telecommunication system suitable for transmitting real-time data and non-real-time packet data, comprising a first and a second communication station, and having a dual mode channel for communication of both the real-time and the non-real-time data from the first to the second station, wherein the first station comprises a first transceiver which is operable to transmit both the real-time and the non-real-time data, the second station comprises a second transceiver which is operable to receive the real-time and/or the non-real-time data, and the first station further comprises a controller for generating an output data stream comprising the real-time data, the controller also allocating non-real-time packet data to the output data stream when the data rate of the real-time data is less than the full data capacity of the dual mode channel, which output data stream is transmitted by the transceiver over the channel.

2. A system as claimed in claim 1, wherein the real-time data comprises speech data.

3. A system as claimed in claim 2, wherein the first station comprises a speech coding system which prepares the speech data for transmission from a speech input, and wherein the controller receives timing information from the speech coding system indicating the timing of interruptions in the speech data stream.

4. A system as claimed in any one of claims 1 to 3, wherein the first transceiver comprises a buffer for storing the non-real-time packet data for transmission during reductions in the data rate of the real-time data.

5. A system as claimed in claim 1, wherein the first station comprises a base station, and the second station comprises a mobile station of a cellular telecommunications network.

6. A telecommunication station for use in a system as claimed in any one of claims 1 to 5.

Sub 2

7. A method of operating a telecommunication system suitable for transmitting real-time data and non-real-time packet data, the system

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comprising a first and a second communication station and having a dual mode channel for communication of both the real-time and the non-real-time data from the first to the second station, the first station comprising a first transceiver which is operable to transmit both the real-time and the non-real-time data, the second station comprising a second transceiver which is operable to receive the real-time and/or the non-real-time data, wherein the method comprises controlling the allocation by the first transceiver of non-real-time packet data to an output data stream comprising the real-time data when the data rate of the real-time data stream is less than the full data capacity of the dual mode channel, and controlling the first transceiver to transmit the output data stream over the channel.

8. A method as claimed in claim 7 wherein the real-time data comprises speech data and the first station comprises a speech coding system which prepares the speech data for transmission from a speech input, characterised by determining from the speech coding system the timing of interruptions in the speech data stream.

9. A method as claimed in claim 7 or 8 wherein the first station comprises a buffer, characterised by storing the non-real-time packet data in the buffer for transmission during reductions in the data rate of the real-time data.

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